

REMARKS

This Amendment is filed in response to the Office Action mailed March 25, 2005.

All objections and rejections are respectfully traversed.

Claims 1-25 are in the case.

Claims 16-25 were added to better claim the invention.

Claims 4, 6, and 9 were amended to better claim the invention

In Fig. 4 of the drawings, Applicant has changed the reference numeral of the first “G” disk in the “GREEN REGION” from “402” to “404” to correct a duplicate use of reference numeral “402” in the original drawing.

A copy of Fig. 4 showing the change in red is enclosed.

A replacement set of formal drawings including the correction to Fig. 4 is enclosed.

Applicant respectfully requests that this change be approved by the Examiner.

Claim Rejections – 35 U.S.C § 102

At paragraph 2 of the Office Action, claims 1-3 and 9-15 were rejected under 35 U.S.C 102(e) as being anticipated by Gross et al., U.S. Patent No. 6,128,734 issued on October 3, 2000 (hereinafter Gross).

The present invention, as set out in representative claim 1, comprises in part:

1. A method of transferring ownership of a volume comprising of a plurality of disks from a source file server to a destination file server comprising the steps of:

*changing ownership of the plurality of disks to an un-owned state from a state of source file server ownership; and
changing ownership of the plurality of disks to a state of destination file server ownership from the un-owned state.*

Gross discloses a method for a computer system to be upgrade from an old operating system to a new operating system while the computer system continues to function. See col.2, lines 25-28. In this method, a new disk within the computer system is prepared as a bootable device with a second operating system while the computer system continues to function under control of its first operating system. See col. 2, lines 29-36. Then, the computer system is rebooted under the old operating system, the reboot is halted, and the system transfers to a single user mode. See col. 9, lines 34-41. In the single user mode, commands to change to disks used by the new operating system are executed, and booting is transferred to the new operating system on the new disk. See col. 9, lines 41-54. From the single user mode, the vgexport command is specified to remove the disks originally used by the first operating system, and then the vgimport commands is specified to add the disks to instead be used by the second operating system. See col. 9, line 49 to col. 10, line 5.

The Applicant respectfully urges that Gross is silent concerning the Applicant's claimed invention of

changing ownership of the plurality of disks to an un-owned state from a state of source file server ownership ... changing ownership of the plurality of disks to a state of destination file server ownership from the un-owned state.

The disclosure of Gross is silent on the Applicant's novel claim of changing the ownership of disks from a source server to a destination server by going through an intermediate un-owned state. Gross discloses deleting a directory of disks being used by a server under a first operating system and re-writing the directory to be used by the server under a second operating system. Clearly, Gross never discloses changing disks *to an un-owned state from a state of source file server ownership* and then *to a state of destination file server ownership from the un-owned state*.

The Applicant describes the advantages of changing ownership by going through an intermediate un-owned state as:

(1) It is an object of the present invention to provide a system and method for transferring ownership of a volume in a networked storage arrangement. The system and method should be atomic (i.e., all disks are transferred, or one of the disks are transferred), and maintain the consistency of the disks. See page 4, lines 6-10.

(2) Both the destination and source filers maintain log files that are updated after each step in the transfer process. If the transfer process is interrupted by, for example, one of the filers becoming inactive, the logs can be utilized to continue the process when both filers are active. See page 4, lines 20-24.

Applicant respectfully urges that Gross is legally precluded from anticipating the claimed invention under 35 U.S.C. § 102 because of the absence of Applicant's claimed novel

changing ownership of the plurality of disks to an un-owned state from a state of source file server ownership ... changing ownership of the plurality of disks to a state of destination file server ownership from the un-owned state.

The present invention, as set out in representative claim 9, comprises in part:

9. A method of transferring ownership of a volume having a plurality of disks comprising the steps of:

writing a first log file to record a first part of a transfer process;

performing the first part of the transfer process, the first part of the transfer process being transferring ownership from a source server to an un-owned state;

writing a second log file to record a second part of the transfer process; and

performing the second part of the transfer process, the second part of the transfer process being transferring ownership from the un-owned state to a destination server.

The Applicant respectfully urges that Gross is silent concerning the Applicant's claimed invention of

writing a first log file ... performing the first part of the transfer process ...

writing a second log file ... performing the second part of the transfer process

Examiner asserts that Gross shows *writing a first log file* in the following lines:

The vgexport command removes the volume group /dev/vg00 from the system without modifying the logical volume information on the physical volume. Specifically, /dev/vg00 is removed from the /etc/lvmtab file. The associated device files including the /dev/vg00 directory and the group files are removed from the system.

(Gross col. 9, lines 55-60)

Clearly, Gross does not disclose *writing a first log file* in these lines.

Furthermore, Examiner asserts that Gross shows *writing a second log file* in the following:

The vgimport command adds the volume group /dev/vg00 to the system. The specified physical volume /dev/dsk/disk_124 is scanned to obtain the volume group information and logical volume information. This command works like the vgcreate command by requiring that the volume group device directory and group special file be created before the command is executed. The volume group /dev/vg00 is added to the /etc/lvmtab file, and the associated logical volume device files are added to the system. The vgimport command assumes that the volume group information has already been created on the physical volumes.

(Gross col.10, line 1-12)

Clearly, Gross does not disclose *writing a second log file* in these lines.

Applicant respectfully urges that Gross is legally precluded from anticipating the claimed invention under 35 U.S.C. § 102 because of the absence of Applicant's claimed novel

writing a first log file ... performing the first part of the transfer process ...

writing a second log file ... performing the second part of the transfer process

Claim Rejections – 35 U.S.C § 103

At paragraph 4 of the Office Action, claims 4-7 were rejected under 35 U.S.C 103(a) as being unpatentable over Matsunami et al., U.S. Patent Publication 2002/0099914 published on July 25, 2002 (hereinafter Matsunami), in view of Gross.

The present invention, as set out in representative claim 4, comprises in part:

4. A method for transferring ownership of a volume having a plurality of disks, the method comprising the steps of:
sending a first message to a source file server, the message containing a request for transferring ownership of a volume of disks;
receiving a response from the source file server;
if the response contains abort information, aborting the transfer;
if not, *verifying that the volume can be transferred*;
if the volume can be transferred, *sending a second message to the source file server* to perform the first part of a transfer process to transfer ownership from the source file server to an un-owned state;
receiving a response from the source file server after it performed the first part of the transfer process; and
in response to the step of receiving, *performing a second part of the transfer process* to transfer ownership from the un-owned state to a destination file server.

The Applicant respectfully urges that Gross and Matsunami are silent concerning the Applicant's claimed invention of

sending a first message to a source file server ... receiving a response from the source file server ... verifying that the volume can be transferred ... sending a second message to the source file server ... receiving a response from the source file server ... performing a second part of the transfer process

Matsunami discloses a method for managing storage areas of a storage device shared by multiple servers over a storage area network. See page 1, paragraph 0001. In

this method, a storage area with proper disk capacity can be dynamically formed and provided to a server at the server's request. See page 1, paragraph 0015. Then, the disk capacity of the storage area can be increased at any time, on-demand if the disk capacity for the server becomes insufficient. See page 1, paragraph 0016.

The disclosures of Gross and Matsunami are silent on Applicant's novel claim use of a destination file server verifying that disks can be transferred, and performing a second part of a transfer process in response to messages from a source file server. Gross discloses a method for changing the directory of a server from a first operating system to a second operating system. Matsunami discloses a method for managing storage areas of a storage device including forming and expanding the capacity of a storage area assigned to a particular server. Clearly, neither Gross nor Matsunami disclose a destination file server verifying that disks can be transferred and performing a second part of a transfer process in response to messages from a source file server.

Accordingly, the Applicant respectfully urges that Gross and Matsunami, taken either singly or in combination, are legally insufficient to make obvious the presently claimed invention under 35 U.S.C § 103 because of the absence of the Applicant's claimed novel

sending a first message to a source file server ... receiving a response from the source file server ... verifying that the volume can be transferred ... sending a second message to the source file server ... receiving a response from the source file server ... performing a second part of the transfer process to transfer

The present invention, as set out in representative claim 6, comprises in part:

6. A method for transferring ownership of a volume having a plurality of disks comprising the steps of:

verifying that the disks can be transferred in response to an initial request from a destination file server;

sending an acknowledgement by the source file server to the destination file server;

receiving a second request from the destination file server;

aborting if the second request contains abort information;

changing the volume to an off-line status in response to the second request not containing abort information;

performing a first part of a transfer process, the first part of the transfer process being transferring ownership from the source file server to an un-owned state; and

sending a message to the destination file server to prompt a second part of the transfer process, the second part of the transfer process being transferring ownership from the un-owned state to the destination server.

The Applicant respectfully urges that Gross and Matsunami are silent concerning the Applicant's claimed invention of

verifying that the disks can be transferred in response to an initial request from a destination file server ... receiving a second request from the destination file server ... changing the volume to an off-line status in response to the second request ... performing a first part of a transfer process

The disclosures of Gross and Matsunami are silent on Applicant's novel claim use of a source file server verifying that disks can be transferred, and performing a first part of a transfer process in response to requests from a destination server. Gross discloses a method for changing the directory of a server from a first operating system to a second operating system. Matsunami discloses a method for managing storage areas of a storage device including forming and expanding the capacity of a storage area assigned to a par-

ticular server. Clearly, neither Gross nor Matsunami disclose a source file server verifying that disks can be transferred and performing a first part of a transfer process in response to requests from a destination server.

Accordingly, the Applicant respectfully urges that Gross and Matsunami, taken either singly or in combination, are legally insufficient to make obvious the presently claimed invention under 35 U.S.C § 103 because of the absence of the Applicant's claimed novel

verifying that the disks can be transferred in response to an initial request from a destination file server ... receiving a second request from the destination file server ... changing the volume to an off-line status in response to the second request ... performing a first part of a transfer process

At paragraph 5 of the Office Action, claim 8 was rejected under 35 U.S.C 103(a) as being unpatentable over Matsunami and Gross, in view of Noveck et al., U.S. Patent No. 6,757,695 issued on June 29, 2004 (hereinafter Noveck).

Applicant respectfully urges that Noveck is precluded under 35 U.S.C. 103(c) as a reference under 35 U.S.C. 103(a) against the present Application for U.S. Patent. Noveck and the present invention were both owned by Network Appliance, Inc., at the time that the invention was made.

The statute 35 U.S.C. 103(c) states as follows:

“Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.”

The present application was assigned to Network Appliance, Inc. by Assignment recorded at Reel/Frame 012675/0964 on March 8, 2002.

Noveck was assigned to Network Appliance, Inc by Assignment recorded at Reel/Frame 012070/0576 on August 9, 2001.

Filing date of the present Application: December 21, 2001.

Filing date of cited art, Noveck: August 9, 2001.

Issued date of cited art, Noveck: June 29, 2004.

Analysis with respect to sections of 35 U.S.C. § 102

A person shall be entitled to a patent unless --

102(a) “the invention ... was patented ... in this ... country ... before the invention thereof by the applicant”

Analysis: Noveck does not qualify as prior art under 102(a) because the invention was invented by Applicant before patenting by Noveck, as Applicant’s filing date precedes issue of Noveck’s patent.

102(b) “the invention was patented ... more than one year prior to the date of the application for patent in the United States”

Analysis: Noveck does not qualify as prior art under 102(b) because the patent was filed before patenting Noveck.

102(c) “he has abandoned the invention”

Analysis: Noveck does not qualify as prior art under 102(c) because the Applicant has not abandoned the present invention.

102(d) “the invention was first patented or caused to be patented ... in a foreign country prior to the date of the application for patent in this country on an application for patent ... filed more than twelve months before the filing of the application in the United States”

Analysis: Noveck does not qualify as prior art under 102(d) because the present invention was not filed in a foreign country before filing in the United States.

Accordingly, Applicant respectfully urges that Noveck qualifies as prior art only under 35 U.S.C. 102(e), 102(f) or 102(g), and therefore is legally precluded from serving as a reference under 35 U.S.C. 103(a) by operation of 35 U.S.C. 103(c).

The present invention, as set out in representative claim 8, comprises in part:

8. A method of transferring ownership of a volume having a plurality of disks comprising the steps of:

writing a first destination log file;
verifying that the plurality of disks can be transferred;
writing a first source log file;
verifying that the volume can be accepted by the destination;
writing a second destination log file;
writing a second source log file;
performing a first part of a transfer process;
writing a third source log file;
writing a third destination log file;
performing a second part of the transfer process; and
erasing the previously written logs.

The Applicant respectfully urges that Gross and Matsunami are silent concerning the Applicant's claimed invention of

writing a first destination log file ... verifying that the plurality of disks can be transferred ... writing a first source log file ... verifying that the volume can be accepted by the destination ... writing a second destination log file ... writing a second source log file ... performing a first part of a transfer process ... writing a third source log file ... writing a third destination log file ... performing a second part of the transfer process ... erasing the previously written logs.

The disclosures of Gross and Matsunami are silent on Applicant's novel claim of transferring ownership of disks from a source server to a destination server and logging the corresponding steps. Gross discloses a method for changing the directory of a server from a first operating system to a second operating system. Matsunami discloses a method for managing storage areas of a storage device including forming and expanding the capacity of a storage area assigned to a particular server. Clearly, neither Gross nor Matsunami disclose transferring ownership of disks and logging the steps of the transfer.

Furthermore, at paragraph 5 of the Office Action, the Examiner agrees that neither Gross nor Matsunami show the following elements of the claimed invention:

writing a first destination log file;

writing a first source log file;

writing a second destination log file;

writing a second source log file;

writing a third source log file;
writing a third destination log file; and
erasing the previously written logs.

Accordingly, the Applicant respectfully urges that Gross and Matsunami, taken either singly or in combination, are legally insufficient to make obvious the presently claimed invention under 35 U.S.C § 103 because of the absence of the Applicant's claimed novel

writing a first destination log file ... verifying that the plurality of disks can be transferred ... writing a first source log file ... verifying that the volume can be accepted by the destination ... writing a second destination log file ... writing a second source log file ... performing a first part of a transfer process ... writing a third source log file ... writing a third destination log file ... performing a second part of the transfer process ... erasing the previously written logs.

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at: (617) 951-3028.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

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Please charge any additional fee occasioned by this paper to our Deposit Account

No. 03-1237.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "A. Sidney Johnston".

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